UUW78

PR19 Reconciliation submission

October 2023

Chapter 10 supplementary document

This document, which is being provided alongside our PR24 business plan submission, provides the commentary for 20 prescribed reconciliation mechanisms and two feeder models that we will submit alongside this document. It details the adjustments required to our revenue and opening RCV as a result of the reconciliation process. We have populated each mechanism with actual data from the first three years of AMP7 and forecast data for the remaining two years. The adjustments from the mechanisms will be made as part of the PR24 process.

United Utilities

Water for the North West

Background

Ofwat consults widely in developing the methodology and underlying assumptions for each price review. This allows it to make a determination that establishes and fixes the price controls for each company for the following five years. This process recognises that there are some areas which are subject to potential change and as a result each price review process establishes a defined suite of reconciliation mechanisms to manage any differences that arise to these assumptions.

These reconciliation mechanisms ensure that risks are properly allocated between companies and customers and that customers' interests are appropriately protected. Ofwat's approach to reconciliation marks a significant evolution from the approach adopted at PR14. The PR19 reconciliation model suite is significantly wider than that of PR14 and includes a number of new reconciliation mechanisms covering issues such as the cost of new debt. At PR19 there are 20 separate reconciliation mechanisms with a number of different purposes:

- To account for changes in circumstances outside of a company's control that affect their costs (for example changes to the cost of new debt) and where it is appropriate for the amount of allowed revenue recovery to change.
- To account for the difference between the necessary assumptions made in the final determinations for the final year of the AMP (the 'blind' year) and adjust revenues to reflect outturn volumes (e.g. developer services new connections).
- To reflect the impact of performance incentives (e.g. in-period ODI reconciliation, totex reconciliation).

The outputs from these mechanisms then inform the adjustments required to allowed revenue for each price control across the 2025-30 period. The PR19 reconciliation mechanisms are used to cover the following:

- In-period revenue adjustments which in general will apply two years after the event has occurred.
- End-of-period revenue adjustments which will apply to revenues in the next control period, which runs from 2025-30.
- Regulatory Capital Value (RCV) adjustments which are applied through "midnight" RCV adjustments prior to the start of the next control period. These are recovered over time through the run-off of the RCV and the recovery of the allowed return on capital of the RCV balance.

This document, which is being provided alongside the main PR24 business plan submission, sets out the adjustments required to our revenue and RCV as a result of the different reconciliation mechanisms for the first three years of AMP7 and our forecast adjustments for the final two years of AMP7.

This submission contains a summary of the outputs from the 20 completed and audited reconciliation mechanisms. The models have been populated in line with Ofwat's 'PR19 reconciliation Rulebook'[1] which provides guidance on the overall process and detailed mechanics for each reconciliation mechanism. The aim of the document is to provide Ofwat with the required information to assess our PR19 reconciliation proposals.

This submission also includes 12 data tables that contain information relating to our performance over 2020-25. A number of the outputs from these tables have been used to populate the reconciliation mechanisms. These data tables have been completed in accordance with the 'PR24 Final methodology submission tables and guidance'[2] and have been both internally and externally assured and submitted in July as part of the 'Early submission of data for PR19 reconciliation models'.

The actual impact of the reconciliation mechanisms will inevitably change, to some degree, over the final two years of AMP7 as actual data becomes available. We will therefore, submit updated reconciliation documents in the summers of 2024 and 2025, replacing forecast data with actual data. However, we have a strong track record

[1] https://www.ofwat.gov.uk/wp-content/uploads/2020/12/PR19-Reconciliation-Rulebook-Guidance-Document_August_2021_Update.pdf

[2] https://www.ofwat.gov.uk/regulated-companies/price-review/2024-price-review/final-methodology/pr24-final-methodology-submission-tables-and-guidance/

of forecasting the adjustments to the end of the AMP periods, as demonstrated by the fact that previous blind year adjustments have been minor, providing confidence that we are making accurate forecasts.

When reading this document it should be recognised that a number of significant events have occurred that were not anticipated during the finalisation of the PR19 process. Following the publication of the PR19 final determination UUW's WINEP was expanded to incorporate a major additional investment at Bolton WwTW. The country was then hit by the COVID-19 pandemic, which has been followed by the "cost of living crisis" and a period of sustained high inflation. There has also been significant additional focus on the environmental performance of the water industry.

As a consequence of these unanticipated and unprecedented events, UUW has initiated a number of new initiatives that were not set out within the PR19 final determination. Some of the events have had a direct and substantial impact upon the PR19 reconciliation mechanisms; for example, the scale and the nature of the inflation we have experienced has directly impacted on the RPI-CPIH wedge reconciliation model.

The initiatives that we implemented in response to these events, including the implementation of our pollution incident reduction plan and our river water quality action plans have resulted in significant additional investment and as such have had a direct impact on some of the other reconciliation mechanisms. For example, the cost reconciliation model reflects increased expenditure opposite the PR19 total expenditure (totex) assumptions, with the tax treatment of this investment also having a major impact through the tax reconciliation adjustment. The impact of these events and initiatives has also directly impacted on the variability associated with a number of the other PR19 reconciliation mechanisms.

The work that we initiated as part of our green recovery programme is also subject to additional change mechanisms that were not anticipated at PR19, but are now reflected within this document.

In addition to the events which are reflected in the reconciliation models, on 3 April 2023, Ofwat confirmed that it was approving the accelerated delivery of several companies' environmental schemes into AMP7 from AMP8. For UUW, this meant that we have been able to commence work, in AMP7, on a significant proportion of our AMP8 overflows programme, as well as several other, smaller schemes that would otherwise have been delivered later.

As set out within Ofwat's 'Accelerated Infrastructure programme final decisions'[3], the scope of the transition expenditure programme was expanded, so that it covers work undertaken on this programme in 2023-25. This allows companies to undertake work in this price control period on their PR24 enhancement programmes and receive funding through the PR24 process, enabling the increase in investment to be spread over the PR19 and PR24 periods.

We are recording this spend on this programme separately which will allow Ofwat to make decisions on the transition expenditure allowances through the draft and final determination process. This programme and expenditure is therefore not included within this document

The impact of these unprecedented events has therefore inevitably resulted in larger reconciliation values than would have been expected at the PR19 determination. However, we are confident that the scale of these adjustments reflects either the combination of a series of factors that are either outside of management control; or are the result of the proactive and responsible way that we have engaged with issues that we were able to influence by, for example, accelerating investment to respond to emerging investment requirements.

The result of the reconciliation mechanisms is that £362.49m will be recovered over AMP8 through customer bills and £441.41m is added to the RCV and deferred for recovery through customer bills in future periods. The reconciliation adjustments are apportioned between future revenues and/or the RCV in line with the specific Ofwat reconciliation model outputs. However, rather than seeking to claim the additional revenues resulting from AMP7 ODI performance in years 1 and 2 of AMP8, in line with how the in-period adjustment and RFI would automatically profile the additions, we instead are seeking to defer the recovery of part of these additional revenues over the AMP8 period, demonstrating our responsible approach to bill profiling. The purpose of this decision is to help smooth the total impact on customers' bills over five years, reducing the upfront impact, which

[3] https://www.ofwat.gov.uk/wp-content/uploads/2023/04/A0-accelerated-process-final-decisions.pdf

will assist with affordability and help to provide a more stable and predictable bill. This responsible approach to bill profiling is generally consistent with our approach in previous price reviews. We are able to propose this revenue deferral, for the benefit of customers, due to our robust and resilient financial position, demonstrated by a robust balance sheet which we have carefully maintained over many price reviews.

For a breakdown of the impact of each reconciliation mechanism on an average household bill please see **section four** of this document.

All monetary values within this document are expressed in 2017/18 prices, unless stated otherwise.

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1. PR19 Reconciliation Submission

1.1 Key messages

- We have populated the 20 reconciliation mechanisms and two feeder models in accordance with Ofwat's 'Reconciliation Rulebook'[4] and provide commentary for each model within this document. We have populated each reconciliation model with actual data from the first three years of AMP7 and forecast data for the remaining two years.
- The impact of the reconciliation mechanisms will change over the final two years of AMP7 as actual data becomes available and we will submit an updated reconciliation document in the summers of 2024 and 2025, replacing forecast data with actual data. However, we have a strong track record of forecasting these to the end of the AMP as demonstrated by the fact that previous blind year adjustments have been minor, providing confidence in our broader estimates that we are making accurate forecasts.
- The impact of a number of unprecedented events, e.g. the COVID-19 pandemic has inevitably resulted in larger reconciliation values than would have been expected at the PR19 determination. However, we are confident that the scale of these adjustments reflects either the combination of a series of factors that are either outside of management control; or are the result of the proactive and responsible way that we have engaged with issues that we were able to influence by, for example, accelerating investment to respond to emerging investment requirements.
- The 20 reconciliation mechanisms and the PR14 blind year adjustments result in a positive AMP8 revenue adjustment of £362.49m and a positive RCV adjustment of £441.41m in 2017/18 prices. Aggregating the in-period adjustments (see table 1) results in a positive total revenue adjustment of £190.45m in 2017/18 prices.
- We have calculated that the 2030 average customer bill impact as a result of the reconciliation mechanisms would be £19.20 (2022/23 prices). However, we are managing the impacts of these mechanisms alongside the other revenue requirements of the AMP8 period in a way that controls the impacts on customer bills.

1.2 Structure

1.2.1 This document, which is being provided alongside our PR24 business plan submission, provides the commentary for 20 prescribed reconciliation mechanisms and two feeder models that we will submit alongside this document. It details the adjustments required to our revenue and opening RCV as a result of the reconciliation process.

1.2.2 This document is structured as follows:

- **Section 2** Details the assurance that has been undertaken on the data and commentary within this submission
- **Section 3** Application of the adjustments to revenue and RCV as a result of the PR19 reconciliation mechanisms.
- **Section 4** Breakdown of the impact of the reconciliation mechanisms on customer bills.
- **Section 5** Impacts of the individual reconciliation mechanisms
- **Section 5.1** Commentary for the cost reconciliation mechanism.
- **Section 5.2** Commentary for the ODI performance model.
- **Section 5.3** Commentary for the land sales reconciliation mechanism.

[4] https://www.ofwat.gov.uk/wp-content/uploads/2020/12/PR19-Reconciliation-Rulebook-Guidance-Document_August_2023_Update.pdf

- **Section 5.4** Commentary for the water trading incentive reconciliation mechanism.
- **Section 5.5** Commentary for the Developer services revenue adjustment mechanism.
- **Section 5.6** Commentary for the Strategic regional water resources reconciliation mechanism.
- **Section 5.7** Commentary for the Gearing outperformance sharing mechanism.
- **Section 5.8** Commentary for the Tax reconciliation mechanism.
- **Section 5.9** Commentary for the RPI-CPIH wedge reconciliation model.
- **Section 5.10** Commentary for the Cost of new debt reconciliation model.
- **Section 5.11** Commentary for the Residential retail reconciliation model.
- **Section 5.12** Commentary for the Bilateral Entry Adjustment reconciliation model.
- **Section 5.13** Commentary for the Bioresources revenue reconciliation model.
- **Section 5.14** Commentary for the Customer measure of experience reconciliation model
- **Section 5.15** Commentary for the In-period adjustments model.
- **Section 5.16** Commentary for the Green recovery cost allowance adjustment reconciliation model.
- **Section 5.17** Commentary for the Green recovery time value of money adjustment
- **Section 5.18** Commentary for the Developer services measure of experience reconciliation model.
- **Section 5.19** Commentary for the WINEP reconciliation model
- **Section 5.20** Commentary for the Revenue forecasting incentive reconciliation model.
- **Section 5.21** Commentary for the Regulatory Capital Value (RCV) feeder model.
- **Section 5.22** Commentary for the revenue feeder model.
- **Appendix A** Overview of performance against performance commitments 2020-2023.

1.3 Overview

1.3.1 This document, which is being provided alongside the main PR24 business plan submission, sets out the adjustments required to our revenue and RCV as a result of the different reconciliation mechanisms for the first three years of AMP7 and our forecast adjustments for the final two years of AMP7.

1.3.2 This submission sets out how we have performed against each of the models and contains a summary of the outputs from the 20 completed and audited reconciliation mechanisms. The models have been populated in line with Ofwat's 'PR19 reconciliation Rulebook'5 which provides guidance on the overall process and detailed mechanics for each reconciliation mechanism. The aim of the document is to provide Ofwat with the required information to assess our PR19 reconciliation proposals.

1.3.3 This submission also includes 12 data tables that contain information relating to our performance over 2020-25. A number of the outputs from these tables have been used to populate the reconciliation mechanisms. These data tables have been completed in accordance with the 'PR24 Final methodology submission tables and guidance'[6]

1.3.4 The information within these models and this submission has been both internally and externally assured with the process that we have adopted being set out in section two of this document.

1.3.5 The impact of the reconciliation mechanisms will change over the final two years of AMP7 as actual data becomes available and we will submit an updated reconciliation document in the summers of 2024 and

[5] https://www.ofwat.gov.uk/wp-content/uploads/2020/12/PR19-Reconciliation-Rulebook-Guidance-Document_August_2023_Update.pdf

[6] https://www.ofwat.gov.uk/regulated-companies/price-review/2024-price-review/final-methodology/pr24-final-methodology-submission-tables-and-guidance/

2025, replacing forecast data with actual data. However, we have a strong track record of forecasting these to the end of the AMP as demonstrated by the fact that previous blind year adjustments have been minor, providing confidence in our broader estimates that we are making accurate forecasts.

1.3.6 N.B. we have observed three issues with the way that the revenue feeder model calculates the revenue adjustments to use within RR6, inputs into the PR24 financial model and ultimately the allowed revenue that it calculates companies will receive for these adjustments during AMP8. We brought these issues to the attention of Ofwat in a query dated 22 August 2023 (Query ID: 538). We recognise that it is too late for Ofwat to make adjustments to the current workings of this feeder model or the financial model prior to companies submitting their plans in October. Therefore, in section five of this document we set out the approach that we have adopted for our business plan submission to mitigate their impact and provide our proposed solution.

2. Assurance

2.1.1 The data used to populate the data tables and models for this submission has been derived from three main sources:

- **Actual data for the first three years of the AMP7 period:** this data has been previously assured in line with our published assurance framework as set out within each year's APR.
- **Forecast data for the remaining two years of the AMP7 period:** this data has been assured in line with our published assurance framework and subject to senior manager review and sign off. This has been independently reviewed by corporate audit.
- **Historic data from AMP6 or previous periods:** this data has already been determined by Ofwat and has been used without any subsequent adjustments within this submission.

2.1.2 The actual data for the first three years of the period has been subject to a detailed three lines of assurance approach:

- Data providers, their managers and business unit directors have produced and approved the data and audit trails that were developed to support the values and data reported within this submission. Reported data is reviewed and signed off before presentation to the UUW Board.
- The Economic Regulation and Finance teams have provided the assurance and governance framework for the data collection and review process and has provided oversight of the application of this process. UUW Corporate Audit has undertaken a review of the accuracy of the data within the submission and to confirm that the assurance framework has been fully applied.
- For any data subject to external assurance, the UUW financial auditor (KPMG) or the UUW independent technical auditor have reviewed each of the data methodologies and audit trails and have provided audit opinions or independent technical assurance statements for the UUW Board. These opinions or statements are published within each year's Annual Performance Report.

2.1.3 The data for the final two years has been based upon predicted performance. Assumptions for the final two years have been developed on a bottom up basis and have been developed to be consistent with historic performance or expenditure levels, but taking account of ongoing plans and proposed future interventions.

2.1.4 The information within the submission has been subject to an independent review undertaken by UUW Corporate Audit. This review had the objectives of confirming:

- The validity and consistency of the data reported in the supporting data tables.
- Overall governance arrangements in place to ensure the regulatory data is reliable, accurate and complete and reported in line with the required timescales.
- Confirmation that assurance activities have been completed and no actions remain outstanding.
- Compliance of the reported data and commentary with key aspects of the PR24 methodology and PR19 reconciliation rulebook.

2.1.5 The review concluded that:

"Our work confirmed the adequacy and effectiveness of the key processes and controls over the AMP7 reconciliation submission. Our sample testing confirmed that the appropriate data was accurately transcribed from the APR to the reconciliation documentation and that commentaries are consistent with the reported data".

3. Application of adjustments to revenue and regulatory capital value (RCV)

3.1.1 The adjustments determined through the reconciliation mechanisms affect either revenues or the wholesale regulatory capital value (RCV), with the revenue adjustments either being applied in-period or at the end of the period.

3.1.2 The in-period adjustments are managed through an ongoing annual process. The end-of-period adjustments are managed through the PR24 process and will adjust the required revenue and RCV to account for our actual and forecast performance against the 20 reconciliation mechanisms set out within this document. These adjustments are calculated using the processes and models set out within Ofwat's relevant 'PR19 Reconciliation rulebook'[7].

3.1.3 The adjustments will increase AMP8 revenues by £362.49m and the starting RCV by £441.41m. The AMP8 revenue adjustment includes all of the adjustments in Table 2, as well as the total in-period adjustments for 2023/24 and 2024/25 in Table 1 as these will be recovered in AMP8.

3.1.4 The in-period revenue adjustments are set out in Table 1 below.

Table 1: Summary of in-period reconciliation adjustments per year (2017/18 prices), £m

PR19 reconciliation model	Total revenue adjustment	2020/21	2021/22	2022/23	2023/24	2024/25
Revenue forecasting incentive (RFI)	0.00	0.00	0.00	0.00	0.00	0.00
Customer measure of experience (C-MeX)	10.57	2.08	2.18	3.02	1.73	1.56
Developer measure of experience (D-MeX)	4.02	1.05	0.82	0.05	0.70	1.40
Bilateral Entry Adjustment	0.00	0.00	0.00	0.00	0.00	0.00
Bioresources revenue reconciliation	0.00	0.00	0.00	0.00	0.00	0.00
ODI performance model	175.86	17.40	21.33	22.21	58.39	56.53
Total	**190.45**	**20.53**	**24.33**	**25.28**	**60.82**	**59.49**

Source: Data taken from individual reconciliation mechanisms.

3.1.5 The end-of-period adjustments are set out in Table 2 below.

[7] https://www.ofwat.gov.uk/wp-content/uploads/2020/12/PR19-Reconciliation-Rulebook-Guidance-Document_August_2023_Update.pdf

Table 2: Summary of end-of-period reconciliation adjustments to revenue and RCV (2017/18 prices), £m

PR19 reconciliation model	Adjustments type	Revenue	RCV
Cost reconciliation	Revenue/RCV	189.27	123.08
ODI performance model	Revenue/RCV	-9.01	
Residential retail	Revenue	16.01	
Developer services revenue adjustment mechanism	Revenue	82.10	
Cost of new debt reconciliation	Revenue	48.43	
Gearing outperformance sharing mechanism	Revenue	0.00	
Tax reconciliation	Revenue	-132.72	
RPI-CPIH wedge reconciliation	Revenue/RCV	52.16	224.62
WINEP reconciliation model	RCV		80.17
PR19 Water trading incentive model	Revenue	0.00	
Land sales	RCV		-6.89
Strategic regional water resources reconciliation	RCV/revenue	-4.43	-14.19
Green recovery time value of money adjustment	Revenue	0.66	
Green recovery cost allowance adjustment	RCV		20.32
PR14 blind year Residential retail	Revenue	-0.29	
PR14 blind year ODI performance reconciliation	RCV		-9.99
PR14 blind year totex menu	RCV		24.04
PR14 blind year land sales	RCV		0.25
Total		**242.18**	**441.41**

Source: Data taken from individual reconciliation mechanisms.

3.1.6 It is clear that some reconciliation models have resulted in larger adjustments than others, namely:

- The Cost reconciliation mechanism- this is mainly a result of the costs that we have incurred in responding to the impacts of COVID-19 together with the costs of implementing a number of initiatives that were initiated following the PR19 determination.
- The Developer services revenue adjustment mechanism- this is due to a significantly higher number of new connections than assumed.
- The Cost of new debt reconciliation mechanism- this is due to national and international factors that have impacted on the financial markets.
- The Tax reconciliation mechanism- this is mainly due to changes in capital allowances.
- The RPI-CPIH wedge reconciliation mechanism- the scale and the nature of the inflation that we have experienced is outside of the company's control and has had a direct impact on the RPI-CPIH wedge reconciliation, resulting in a large adjustment.

4. Impact of adjustment on customer bills

4.1.1 The adjustments required as a result of the reconciliation mechanisms will impact upon company revenues in AMP8 and in the longer term, with this adjustment in revenues being reflected in customer bills.

4.1.2 There are two forms of wholesale adjustments: direct adjustments to revenue or indirect adjustments to revenue made through 'midnight adjustments' to the opening AMP8 RCV. The adjustments to the RCV are recovered over the longer term with only a proportion of this value being recovered through bills in the AMP8 period.

Table 3: 2030 bill Impact of reconciliation adjustments on an average customer (2022/23 prices) (£)

Reconciliation mechanism	Bill impact[8]
Revenue forecasting incentive (RFI)	0
C-MeX	0.15
D-MeX	0.09
Bilateral entry adjustment (BEA)	0
Bioresources revenue reconciliation	0
ODI performance	4.37
Residential retail reconciliation	0.41
PR19 water trading incentive	0
Developer services revenue adjustment mechanism	2.67
Water industry national environmental programme (WINEP)	0.95
Cost of new debt	1.55
Gearing outperformance sharing mechanism	0
Cost reconciliation	7.97
Tax reconciliation	-4.32
Land sales	-0.09
RPI-CPIH wedge reconciliation	5.19
Green recovery time value of money	0.02
Green recovery cost allowance adjustment	0.28
Strategic regional water resources reconciliation	-0.21
ODI blind year adjustment	-0.14
Totex blind year adjustment	0.33
Land sales blind year adjustment	0.00
Residential retail blind year adjustment	-0.01
Total adjustment	**19.20**

Source: UU calculations.

4.1.3 Reconciliation adjustments are apportioned between future revenues and/or the RCV in line with the specific Ofwat reconciliation model outputs. However, rather than seeking to claim the additional revenues resulting from AMP7 ODI outperformance in years 1 and 2 of AMP8, in line with how the in-period adjustment and RFI would automatically profile the additions, we are seeking to defer the recovery of part of these additional revenues over the AMP8 period. This is to help to smooth the total impact on customers' bills over five years, reducing the upfront impact, which will assist with affordability and help to provide a more stable and predictable bill. We have calculated indicative bill

[8] Bill impact represents impact on average customer.

impacts for each reconciliation mechanism based on the split of RCV and revenues, with revenue adjustments recovered evenly over the five years of AMP8. The sum total of these aligns with the total bill impact reported 'Wholesale reconciliation items' in supplementary document *UUW108 – PR24 Bill Waterfall Model v3.*

5. Impact of individual reconciliation mechanisms

This section sets out the details of each of the reconciliation mechanisms and provides information regarding our performance and the value of adjustments to be made to our revenues and/or RCV. We have followed the requirements set out in Ofwat's 'PR19 Reconciliation Rulebook'[9] to populate each of the reconciliation models.

5.1 Revenue Forecasting Incentive Model

Background and nature of the reconciliation

5.1.1 The Revenue Forecasting Incentive (RFI) is a new mechanism for AMP7 that replaces the PR14 Wholesale Revenue Forecasting Incentive Mechanism (WRFIM). It is an in-period model.

5.1.2 The mechanism is designed to incentivise companies to improve their revenue forecasting within the wholesale Water resources, Water network plus and Wastewater network plus price controls and reduces the impact on customer bills arising from revenue forecasting deviations by:

- Applying a penalty if over or under recovery falls outside of the set error tolerance range (2%).
- Permitting the adjustment of future allowed revenues during the AMP to take account of over and under recoveries in previous years.

5.1.3 The outputs of the model go into the revenue adjustments feeder model.

Assumptions and method

5.1.4 We have:

- Input all PR19 final determination using the source specified within the Ofwat PR19 reconciliation rulebook.
- Applied the blind year adjustments required for 2019/20 as specified by Ofwat in guidance provided on 13 of November 2020. This has been applied in full to the 2021/22 charging year.
- Applied the latest K factors including ODI rewards, penalties as per Ofwat's in-period determination provided in November 2022 and have used forecast K factors for 2024/25 in line with our estimate of 2022/23 ODI performance.
- Used actual revenues recovered for the first three years of the AMP and expected revenues based on our charging structure for the final two years.
- Actual revenues for both 2023/24 and 2024/25 are assumed to be in line with price controls, therefore the revenue imbalance for these years is forecast to be nil.

Value of adjustments

5.1.5 Following the population of the RFI model on the above basis for both the Water and Wastewater price controls, we have calculated that no penalty adjustment is required to either control for our AMP7 performance to date. Furthermore, we expect that our future wholesale charges and tariffs will be set at a level that enables us to recover all adjusted allowed revenues for the remaining years of AMP7 and therefore no adjustments to the AMP8 revenue requirements are forecast to be required.

5.2 Customer measure of experience (C-MeX)

Background and nature of the reconciliation

5.2.1 The Customer Measure of Experience (C-MeX) is an industry common measure of residential customer satisfaction and is designed to incentivise companies to improve customer satisfaction by delivering a

[9] https://www.ofwat.gov.uk/wp-content/uploads/2020/12/PR19-Reconciliation-Rulebook-Guidance-Document_August_2023_Update.pdf

better overall customer experience and improving companies' handling of customer contacts. Each company receives a C-MeX score based on the results from two surveys:

- A customer service survey which samples residential customers who have contacted their company which asks them how satisfied they are with how the company has handled their issue.
- A customer experience survey which samples randomly selected customers and asks them how satisfied they are with their company.

5.2.2 Companies are ranked and based on their relative performance and they can receive outperformance or incur underperformance payments each year. These payments are made through a revenue adjustment to each company's residential retail control.

5.2.3 The C-MeX model determines how Ofwat will reconcile outperformance and underperformance payments for C-MeX which are applied in-period.

Assumptions and method

5.2.4 The incentive rate is calculated as:

5.2.5 (UUW's C-MeX score-median)*(6 per cent/top C-MeX score of all companies in the reporting year-median)

5.2.6 This is then multiplied by our allowed revenue for the Residential Retail price control in the 2022/23 to calculate the overall ODI.

5.2.7 Our forecasts of C-MeX are based upon our expectations of performance from our AMP7 business planning process and our performance against C-MeX so far in AMP7.

Value of adjustment

5.2.8 We expect to achieve fifth in the C-MeX table for water companies and are therefore are eligible for a standard outperformance payment. The outperformance payment for our C-MeX performance for the 2022/23 reporting period is £3.02m.

5.2.9 We expect to continue to receive rewards against this measure for the remainder of the AMP7 period and are forecasting that these will be slightly lower than the value received in 2022/23. In 2023/24 we expect to achieve an outperformance payment of £1.73m and in 2024/25 we expect to achieve an outperformance payment of £1.56m.

5.2.10 The outputs from this model flow into the in-period adjustments model which will apply adjustments for issues such as inflation, tax and time value of money.

5.3 Developer services measure of experience (D-MeX)

Background and nature of the reconciliation

5.3.1 The Developer services measure of experience (D-MeX) is a mechanism to incentivise water companies to provide an excellent customer experience for developer service customers. These customers include small and large property developers, self-lay providers, new appointees and some residential customers that have new mains connections installed. Each company receives a D-MeX score based on two components:

- A qualitative component - a score summarising the performance of the company in a satisfaction survey of developer services customers.
- A quantitative component - a score summarising the performance of the company across selected Water UK developer services performance data metrics.

5.3.2 Each company can receive outperformance payments or incur underperformance payments based on its annual D-MeX score relative to other companies. These payments are made through a revenue adjustment to each company's water network plus and/or wastewater network plus controls.

Assumptions and method

5.3.3 The D-MeX model will determine how Ofwat will reconcile outperformance and underperformance payments for D-MeX which are applied in-period.

5.3.4 The incentive rate is calculated as:

5.3.5 (UUW's D-MeX score-median)*(6 per cent/top D-MeX score of all companies in the reporting year-median).

5.3.6 This is then multiplied by our actual Developer Services revenue for both Water Network Plus and Wastewater Network Plus price controls in the 2022/23 period to calculate the overall ODI.

5.3.7 Our forecast of D-MeX is based upon our expectations of performance from our AMP7 business planning process and our performance against C-MeX and D-MeX so far in AMP7.

Value of adjustment

5.3.8 We expect to achieve eighth in the D-MeX table for water companies and are therefore eligible for a standard outperformance payment. The outperformance payment for our D-Mex performance for the 2022/23 reporting period is £0.05 million.

5.3.9 For the final two years of the period, we expect to deliver improved performance for developers as we realise the benefits of updating our operating model in line with a new IT system over the remainder of the AMP and this will be reflected in increased outperformance payments. In 2023/24 we expect to achieve an outperformance payment of £0.70m and in 2024/25 we expect to achieve an outperformance payment of £1.40m.

5.3.10 The outputs from this model will flow into the in-period adjustments model which will apply adjustments for issues such as inflation, tax and time value of money.

5.4 Bilateral Entry Adjustment (BEA) reconciliation model

5.4.1 There is currently no utilisation of the bilateral market to provide supply within the UU region and therefore the output of this model is zero.

5.5 Bioresources revenue reconciliation model

Background and nature

5.5.1 The in-period bioresources revenue reconciliation model shows how the reconciliation will operate over the period 2020-25. The model shows how the average revenue control is modified each year based on the difference between our outturn and forecast sludge production. Ofwat adjusts allowed bioresources revenue in one year to correct for any under or over-recovery of revenue in earlier years. Finally, it shows how Ofwat will apply the bioresources forecasting accuracy incentive.

Assumptions and method

5.5.2 We have completed the assessment of the bioresources revenue reconciliation model for AMP7 using Ofwat's reconciliation feeder model in accordance with the updated guidance set out in the August 2021 publication 'Ofwat PR19 reconciliation rulebook'. In particular, we have:

- Input all PR19 final determination information using the source specified within the Ofwat PR19 reconciliation rulebook.
- Used actual revenues recovered for the first three years of the AMP and expected revenues based on our charging structure for the final two years.

5.5.3 Actual input data for 2020/21 to 2022/23 is consistent with revenues reported within table 2M and sludge volumes reported in table 8A line 3 of the APR.

5.5.4 Forward forecast data for 2023/24 and 2024/25 is consistent with PR24 tables PD5 past delivery (revenue reconciliation) and BIO1 (sludge data) line 3.

5.5.5 The forecast sludge volumes for 2023/24 and 2024/25 include sludge growth in AMP7.

5.5.6 We are aware we have resubmitted sludge volume data for 2020/21 and 2021/22 as part of a query response in October 2022 (UUW-APR-CA-012). However we have not made changes to our allowed revenue yet. This will not only impact allowed revenue for year one and two of AMP7 but also on the revenue correction for years three, four and five.

5.5.7 The impact is circa. £0.30m increase in allowed revenue relating to year one and two. This change was not incorporated in the early submission tables submitted in July 2023 and we note that Ofwat's guidance is that those tables should not change prior to this October submission except in exceptional circumstances. We therefore have not made this change with this submission so that tables and commentaries remain consistent. However, we intend to make this change to the tables at the next available opportunity.

Value of adjustment

5.5.8 Revenues for both 2023/24 and 2024/25 are assumed to be in-line with the price control, therefore the revenue imbalance for these years and hence the revenue adjustment to be applied at PR24 is forecast to be zero.

5.5.9 The bioresources forecasting accuracy incentive penalty is nil. The percentage level which the company must exceed in order to be subject to a penalty rate is 6%. The forecast error of 2.02% (which represents the difference between the forecast volume of sludge (FTDS) and the actual volume of sludge (ATDS) is lower than the 6% deadband rate that would trigger a penalty. (NB: this model was submitted to Ofwat in July 2023 as part of our 'Early submission of data for PR19 reconciliation models'.)

5.6 ODI performance model

Background and nature of the reconciliation

5.6.1 The outcome of a price review is a defined price and service package that companies are asked to deliver for customers, the environment and other stakeholders. Delivery of service is described through a series of customer focused outcomes which in turn are supported by more granular performance commitments.

5.6.2 We have committed to **seven outcomes** for the AMP7 period:

- Your drinking water is safe and clean.
- You have reliable supply of water now and in the future.
- The natural environment is protected and improved in the way we deliver our services.
- You're highly satisfied with our service and find it easy to do business with us.
- We will improve the way we work to keep bill down and improve services for you and future customers.
- We collect and recycle your wastewater.
- The risk of sewer flooding for homes and businesses is reduced

Performance commitments

5.6.3 Underpinning each outcome is a set of performance commitments. These are service targets for specific types of activities that we undertake. If we achieve or outperform against these targets, then this supports the delivery of outcomes for customers, the environment and other stakeholders. Performance commitments are designed to be stretching and deliver an improved level of performance for customers and stakeholders compared to the levels achieved in the past.

5.6.4 There are 15 performance commitments that are being applied to all water and sewerage companies during AMP7. These are 'common measures' and each has a standard definition set by Ofwat. These common measures are then supplemented by 'bespoke' performance commitments, which reflect additional levels of service or focus for investment that are specific to each company's customers.

5.6.5 We need to deliver against 46 performance commitments in the AMP7 final determination, comprising of the 15 common measures and 31 bespoke measures that are specific to us.

5.6.6 Outcome Delivery Incentives (ODIs) are incentives that apply to performance commitments. They were new mechanisms for AMP6 designed to incentivise companies to deliver and outperform performance targets and to protect customers where companies did not deliver against the range of performance commitments embedded in their final determinations. They also provide incentives for companies to improve their performance beyond these commitments, where it is cost beneficial to do so.

5.6.7 35 of UUW's performance commitments have 'in-period ODIs' which bring ODI payments closer in time to when customers experience a given level of performance. This means Ofwat will adjust companies' allowed revenue during the 2020-25 period to reflect performance in previous years. Some performance commitments have end-of-period ODIs, which means that while performance is measured each year, revenue and/or RCV adjustments will be made at PR24 and are implemented during the 2025-30 period.

5.6.8 As set out in the PR19 final determinations, outperformance payments above 3 per cent of a company's wastewater or water return on regulatory equity (RoRE) for that year are shared with customers. This means that companies receive 50 per cent of outperformance payments above this threshold. This aggregate sharing mechanism applies to all ODI payments, except to C-MeX, D-MeX and those allocated to retail price controls.

5.6.9 The ODI-performance reconciliation model calculates the overall ODI payments accrued by companies, based on their performance in the relevant reporting year, broken down as follows (per price control):

- Revenue adjustments to be applied in the following reporting year;
- Revenue adjustments to be applied at the end of the 2020-25 period; and,
- RCV adjustments to be applied at the end of the 2020-25 period.

5.6.10 The outputs of the net adjustment for each price control for in-period ODIs from the model will flow into the in-period adjustments model which will operate for the first three years and the last year of the 2020-25 period. The in-period adjustments model will apply adjustments for inflation and taxation, as well as any deferrals of ODI payments to subsequent years.

5.6.11 All end-of-period adjustments will be applied through the relevant models at PR24.

5.6.12 A summary of how we have performed against our performance commitments over the first three years of AMP7 can be found in Appendix A of this document. This demonstrates that we have performed well against the measures to date and anticipate that this performance will continue for the remainder of the period. Further details on the delivery of our AMP7 performance commitments and broader obligations is set out in our 'PR19 and PR24 obligations' document

5.6.13 In the summer of 2025, we will complete an ODI performance model based on performance in 2024-25. Ofwat will consider at PR24 if any correction for end-of-period ODIs that we applied as part of the PR24 final determinations in late 2024 is also required. Regardless of that decision, the model will still include any end-of-period ODIs that lead to an outperformance payment in 2024-25. This is to ensure the aggregate sharing mechanism can be calculated in consistency with previous years (i.e. it is applied to the sum of outperformance payments that are paid in-period or end-of-period).

Assumptions and method

5.6.14 The model is populated from the individual performance data for each performance commitment and is subject to assurance through the APR process.

5.6.15 As this is the third year of the AMP we input our actual performance for each performance commitment for year three into the ODI-performance reconciliation model. The model then assesses whether our performance is above or below the performance commitment level (and/or deadband where applicable) and applies the relevant outperformance or underperformance incentive rate attached to that performance commitment.

5.6.16 The ODI calculation for the majority of these performance commitments follows the standard format:

- (A-B)*C
- where:

A represents actual performance, **B** is the performance commitment level and **C** is the incentive rate.

5.6.17 The outperformance or underperformance payment calculated for each performance commitment is then allocated to the relevant price control (as per the updated Outcomes Performance Commitment Appendix from the final determination[10])

5.6.18 Some outperformance and underperformance payments are calculated by a non-standard approach to the ODI calculation. Please see Appendix 3 of our 2022/23 APR for more information about this[11].

5.6.19 Input data for FY23 is aligned to submissions made within Table 3 components of the Regulatory Reporting Process (APR) and the components are assured by both internal and external governance processes.

5.6.20 For populating the ODI models for 2023-24 and 2024-25 future financial forecasts and calculated performance are aligned to the PR24 table OUT8. Forecasts are based upon our expectations of performance from our AMP7 business planning process and our performance so far in AMP7.

Value of adjustments

5.6.21 The in-period revenue adjustments for 2020/21 and 2021/22 have been dealt with through the in-period reconciliation process. Following the population of the model on the above basis, the total in-period outperformance payment for the 2022/23 reporting period is £22.21m.

Table 4: ODI performance model in-period adjustments per price control per year (2017/18 prices), £m

Price control	2022/23	2023/24	2024/25
Water resources	-0.19	-0.13	-0.08
Water network plus	-4.07	34.10	39.22
Wastewater network plus	14.47	8.48	5.58
Bioresources (sludge)	0.94	2.66	1.29
Residential retail	11.06	13.28	10.51
Total	**22.21**	**58.39**	**56.53**

Source: Data taken from ODI performance reconciliation models.

5.6.22 As can be seen from the above table, we have calculated that we will receive substantial outperformance payments in the final two years of the period. In four of the five price controls, we anticipate that our performance will continue in a broadly similar fashion to our current performance in 2022/23. The main area of anticipated change is within the Water network plus price control. In 2022/23 we incurred substantial penalties on the supply interruptions measure. This was mainly due to the impact of the freeze-thaw incident that occurred in December 2022. This was a more sustained freeze and rapid thaw than other recent freeze-thaw events in 2009, 2010 or 2018 and resulted in substantial bursts across the network and directly impacted upon customer service, which resulted in a

[10] Consolidated PR19 final determinations: United Utilities- Outcomes performance commitment appendix

[11] United Utilities 2022/23 Annual Performance Report

penalty in 2022/23 of £15.91m. We have learnt lessons from this event and do not anticipate that we will incur penalties against this measure in the final two years of the period. The other significant change relates to work on the Vyrnwy aqueduct. In September 2020, the DWI confirmed that work on cleaning/relining would need to occur by 31 December 2028. We currently expect that this will extend to 73.40 km during AMP7 and that we will recover £18.5m in 2023/24 and £21.8m in 2024/25 towards the costs of implementing this work through the ODI defined as part of the PR19 process.

5.6.23 We forecast to receive £58.39m in-period outperformance payment in 2023/24 and £56.53m in 2024/25. Full details of our forward forecasts are set out in table OUT8 of our business plan.

5.6.24 The end-of period adjustment after populating the ODI model for 2022/23 is £-2.53m and we anticipate that the net end-of-period revenue adjustment accrued by the end of AMP7 will be £-9.01m. We do not anticipate any end-of-period RCV adjustment through the ODI model.

5.7 In-period adjustments model

Background and nature of the reconciliation

5.7.1 Our performance commitments with in-period outcome delivery incentives (ODIs) require the revenue allowances for all of these controls to be adjusted during the 2020-25 period to account for outperformance or underperformance payments earned or incurred from each company's performance during the period. The in-period adjustments model adjusts the allowed revenue which we can recover over the remainder of the AMP in order to reflect the net ODI outperformance awarded to us for the 2022/23 period. The net ODI for each price control undergoes inflation and tax adjustments and is added to total allowed revenue (in outturn prices). The output of this model is that each price control has a revised allowed revenue in the form of 1) adjusted K factors* for Water Resources, Water Network Plus and Wastewater Network Plus and 2) revised unadjusted revenue for the Residential Retail and Bioresources price controls that takes into account the net ODI outperformance in 2022/23.

5.7.2 The model enables companies to propose to not collect outperformance payments ('abatements') or delay when the adjustment will be made ('deferrals'). Each year Ofwat take into account the representations made by companies as part of their process for making in-period determinations. The impact of in-period ODI payments in the year they are applied will be reflected in a company's allowed and recovered revenues in the revenue forecasting incentive.

Assumptions and method

5.7.3 We have applied the required changes to price controls in line with the final determination of United Utilities' in-period outcome delivery incentives for 2021/22, provided on the 15 November 2022 to:

- K factors for Water resources, Water and Wastewater network plus
- Bioresources unadjusted revenue
- Residential total revenue

5.7.4 Actual data for 2022/23 in-period payments is aligned to reconciliation submissions for ODIs, C-MeX and D-MeX, completed as part of the Regulatory Reporting process (APR).

Value of adjustment

5.7.5 Following the population of the model on the above basis we have calculated the adjustments for 2024/25 for the following:

- Revised K factors for Water resources, Water network plus and Wastewater network plus.
- Revised unadjusted revenue for Bioresources sludge.
- Revised total revenue for Residential retail.

Table 5: In-period adjustments per price control per year (2017/18 CPIH FYA prices), £m

Price control		2021/22	2022/23	2023/24	2024/25
Water resources (K factors)	Previous determination (21/22)	-0.06	0.37	1.64	4.77
	Per UUW in-period model 22/23	-0.06	0.37	1.64	4.52
Water network plus (K factors)	Previous determination (21/22)	0.29	-1.03	-1.10	-3.84
	Per UUW in-period model 22/23	0.29	-1.03	-1.10	-4.79
Wastewater network plus (WaSCs only)	Previous determination (21/22)	-2.87	-0.38	-1.50	-2.83
	Per UUW in-period model 22/23	-2.87	-0.38	-1.50	-0.12
Bioresources (WaSCs only)	Previous determination (21/22)	93.31	94.55	96.22	96.94
	Per UUW in-period model 22/23	93.31	94.546	96.22	98.20
Residential retail (total revenue, TRt – £m, nominal prices)	Previous determination (21/22)	108.38	120.75	127.60	111.24
	Per UUW in-period model 22/23	108.38	120.75	127.60	135.37

Source: Data taken from In-period adjustments model.

5.8 Cost sharing total costs reconciliation

Background

5.8.1 The PR19 Final Determination set total expenditure (totex) assumptions for the 2020-25 period across UUW's four wholesale price controls. If a company overspends or underspends compared to the PR19 assumptions then incentives are applied to determine the sharing of the additional spending or additional saving between customers and the company. Overspend and underspend allocated to customers are reflected in future bills. Overspend and underspend allocated to the company must be borne by investors. The incentives are different for four different categories of spend:

- **Totex subject to standard sharing rates**. This comprises the majority of totex. UUW's sharing rate was set at an equal 50:50 share between customers and the company for both overspend and underspend. This is with the exception of the Bioresources and Residential retail price controls, which has no standard customer sharing (i.e. 0 per cent customer share, 100 per cent company share for both overspend and underspend).
- **Business rates and abstraction licence feeds.** Companies can only exercise limited control over these costs and so the cost variance to the company's PR19 cost allowance is subject to a 75:25 (customer share: company share) sharing rate.
- **Totex not subject to cost sharing**. Some spend is set to have zero customer sharing through the cost reconciliation. This includes spend:
  - Where it would not be appropriate to share costs with customers, e.g. disallowable costs such as fines or customer compensation payments;
  - That is subject to different funding/sharing mechanisms, e.g. strategic water resources development schemes, innovation fund; or
  - That has been set outside of price controls (e.g. non-section 185 diversion costs and income.)

5.8.2 **Green Recovery.** An additional allocation has been granted, in addition to the five-year final determination allowance, to invest in schemes that will help the green economic recovery, as well as benefitting the environment. For more information see our latest Green Recovery overview document[12].

5.8.3 Given the uncertainty over the ultimate costs of the innovative schemes, underspend will be subject to a 90:10 (customer share:company share) sharing rate, to ensure underspend variances are weighted heavily in customers' favour, whilst still providing companies with an incentive to act efficiently. Overspend is subject to an equal 50:50 share between customers and the company.

5.8.4 The PR19 cost reconciliation compares actual expenditure against these allowances for each category of spend for AMP7. The exception to this is totex not subject to cost sharing e.g. disallowable costs and strategic water resources development costs), which is out of scope for customer sharing. This mechanism splits out the reported totex over/underspend per category, with the resulting customer share element being recovered through a mixture of opening adjustments to AMP8 RCV and through AMP8 revenues (with the RCV/revenue split consistent PR19 assumptions on Pay As You Go).

Forecast customer cost share adjustments

5.8.5 Total forecast customer cost share of totex underperformance against the PR19 final determination is principally due to the planned additional investment of circa £610m beyond the final determination allowance over AMP7, as set out below:

- **Investing to improve services for customers (c £250m):** Delivering further improvements to service for customers and better performance against our customer outcome deliver incentives (ODIs). This investment is targeted at delivering sustainable improvements for customers in two specific areas where we want to do better:
  - c£100 million investment in Dynamic Network Management (DNM), an advancement of systems thinking in our wastewater network that will help us reduce sewer flooding and pollution incidents using real-time performance data from a network of sensors to enable predictive and preventative optimisation; and
  - c£100 million investment in drinking water quality improvements (specifically reducing discolouration).
  - c£50 million investment in a number of spend-to-save projects including hydraulic flooding, lead risk and water service resilience, where additional spend is expected to drive further improvements in customer service with resultant improvements in performance.

5.8.6 We are investing in a number of spend-to-save projects including hydraulic flooding, lead risk and water service resilience, where additional spend is expected to drive further improvements in customer service with resultant improvements in performance.

- **Investing outperformance for environmental improvements (c£250m):** Additional investment to deliver our 'Better Rivers: Better North West' programme and make an early start on delivery against new Environment Act 2021 requirements, which were not decided at the time of the final determination and thus not included in the final determination allowed totex. The Environment Act 2021 introduces several new challenges for the sector, including a requirement for water companies to secure a progressive but very substantial reduction in the average number of spills from storm overflows, and controlling nutrient pollution by reducing phosphate release from WwTWs.
- **Vyrnwy Aqueduct improvements (c£110m):** The requirement for the Vyrnwy treated water aqueduct scheme was not set at the time of the final determination and thus, not included in our final determination allowed totex. However, following a Drinking Water Inspectorate (DWI) enforcement order issued in September 2020, we were subsequently required to proceed with the scheme which will improve the quality and aesthetics of the water supply via a programme of

[12] https://www.unitedutilities.com/globalassets/documents/pdf/green-recovery-2023/download

cleaning. Part of these costs will be reflected in outperformance payments earned on reducing discolouration from the Vyrnwy treated water aqueduct performance commitment which measures the length of the aqueduct cleaned or relined.

5.8.7 We also chose to accelerate our AMP7 investment programme within the AMP itself to enable us to deliver benefits sooner. This accelerated spend profile has been categorised as timing within APR table 4C as the overspend across the first three years of the AMP will be offset by equivalent reductions in totex spend in the final two years.

5.8.8 In addition, there is a forecast overspend within Water Network Plus which is predominately due to the delivery of the West Cumbria Future Strategy project. This reflects the impact of operational incidents as a result of extreme weather, and chemical and power price increases.

5.8.9 Other adjustments include customer share adjustments for the abstraction charges and business rates uncertainty mechanism. Total business rates were below the final determination allowance due to a reduction in the central list Rateable Values. This was partially offset by abstraction charges being above the final determination allowance due to changes to the EA charging scheme.

Real wage growth

5.8.10 The PR19 final determination reflected an assumption that wages would rise at a faster rate than inflation, with an associated ex post reconciliation to ensure both customers and companies are protected against this assumption proving incorrect. This adjustment is carried out within the cost reconciliation model, with the Annual Survey of Hourly Earnings (ASHE) providing the yardstick against which changes in real wage growth are assessed. ASHE is published annually in October, meaning the last available ASHE at the time of this submission is the October 2022 data. This covers up to the period 2021/22 so for the purposes of completing the model for early submission, it is necessary to make an assumption about likely real wage growth for the rest of AMP7. We also note that this means that outturn wages in 2024/25 won't be available in time for the AMP7 blind year reconciliation.

5.8.11 UUW analysis of economic indicators and publications suggests that real wages will fall by 3 per cent in 2022/23. Therefore, in 2022/23, we apply a 3 per cent reduction to the ASHE indicator relative to 2021/22. Following this (and for the remainder of AMP7), we assume that wages grow in-line with inflation. We note that this does not necessarily reflect UUW's expectations for its own wage growth, and should be only interpreted as a preliminary analysis of general wage movements in the economy, as would be reflected in the ASHE index.

Performance-related pay

5.8.12 In June 2023, Ofwat published 'Protecting customer interest on performance related executive pay – consultation response document'[13]. This document sets out Ofwat's intention to introduce a mechanism that allows it to adjust revenue allowances so that customers do not fund Performance Related Pay (PRP) awards if a company is unable to demonstrate that its decisions reflect Ofwat's expectations.

5.8.13 Ofwat also published an updated cost reconciliation model with additional inputs and mechanisms to allow it to carry out the PRP adjustment. At the time of early submission, Ofwat has not yet published a determination for PRP adjustments. For this reason, we have input zero for all PRP related inputs.

Value of adjustments

5.8.14 The total revenue adjustment from this model is £189.27m and the total RCV adjustment is £123.08m.

Ofwat-identified error within model

5.8.15 Ofwat made UUW aware of an error (the formula in cell F95 of the Bioresources tab should read F93 * 91-94) within the cost reconciliation model via email on 20 July 2023. Ofwat highlighted that companies can correct this error or submit the model as it is, with Ofwat making the correction to company

[13] https://www.ofwat.gov.uk/wp-content/uploads/2023/03/Protecting_customer_interests_on_performance_related_executive_pay.pdf

submissions. UUW has corrected the error within the model included within this submission, meaning it is not necessary for Ofwat to make this correction. (NB: this model was submitted in July 2023 as part of our ‘Early submission of data for PR19 reconciliation models’).

5.9 Residential retail reconciliation

Background and nature of the reconciliation

5.9.1 The household retail price control is a total revenue control with annual revenue adjustment factors to reflect differences between actual and expected customer numbers and meter penetration.

5.9.2 Total estimated allowed revenues are based on the projected numbers of customers and meter penetration set out in our business plan. As actual customer numbers or meter penetrations differ from these projected values, a modification is required to allow household retail revenues to account for this. This is an end-of-period model, with the calculated adjustment for AMP7 to be reflected in AMP8 revenues.

Assumptions and method

5.9.3 We have:

- Input all PR19 final determination information using the source specified within the Ofwat PR19 reconciliation rulebook.
- Calculated reforecast customer numbers on an annual basis which are stated in the forecast charge multipliers at the beginning of each year (those used in setting the tariffs for the relevant year).The forecast customer numbers are consistent with both the changes in customer numbers and with the forecast charge multipliers.
- The forecast retail revenues by category are consistent with both the changes in customer numbers and with the forecast charge multipliers. 2023/24 and 2024/25 use forecast charge multipliers against future forecast tariffs to obtain outturn revenues.
- The actual customer numbers are linked to the actual customers for each financial years, as reported in table 2F of the Regulatory Reporting Tables. For future years, the same figure is input here as is in the reforecast customer numbers.
- The revenues in each reporting category include a revenue sacrifice due to offering Support and Social tariffs, as reported in table 2F of the regulatory reporting tables. This has been calculated as the total value of discounts, given to customers on the Support and Help to Pay social tariffs that has been funded by United Utilities and not cross-subsidised by other customers. The loss of revenue resulting from this Revenue Sacrifice is not recovered back from the Household Retail Mechanism. Revenue sacrifice is based on calculations in our charging models when setting charges for 2023/24 and 2024/25. 2023/24 reflect the charged that have already been set for the current year. The 2024/25 number is based on the assumptions that social tariffs will increase in line with CPIH.
- Applied a discount rate of 2.96% (PR19 Allowed return on capital appendix, Appointee WACC) in reconciling AMP6 performance.

Value of adjustment

5.9.4 The revenue amount to be reconciled is unchanged from the position as at the end of FY23.

5.9.5 Following the population of the model on the above basis, the total retail revenue adjustments applied at the end of AMP7 to correct for variations from assumptions set out at PR19 will be £16.01m. This is the amount that we are forecasting to be under recovered within AMP7, and is the amount that will be recovered in AMP8 retail revenues.

Table 6: Forecast vs actual customer numbers 2020-2025, thousands

	2020/21	2021/22	2022/23	2023/24	2024/25
Forecast customer numbers	3,042.29	3,065.04	3,088.82	3,113.63	3,139.47
Reforecast customer numbers	3,069.12	3,163.09	3,200.43	3,247.73	3,251.96
Actual customer numbers	3,086.17	3,164.45	3,190.02	3,247.73	3,251.96

Source: Data taken from the Residential retail reconciliation mechanism.

Table 7: Residential retail adjustments per price control per year (2017/18 prices), £m

Price control	2020/21	2021/22	2022/23	2023/24	2024/25
Residential retail	8.41	6.08	1.52	-	-

Source: Data taken from the Residential retail reconciliation mechanism.

5.10 Developer services revenue adjustment mechanism

Background and nature of the reconciliation

5.10.1 At PR19, developer services revenue was included within the Water and Wastewater network plus price controls, with the aim of driving cost efficiencies and preventing companies from overcharging new connection customers. Ofwat introduced a developer services revenue adjustment (DSRA) mechanism, which adjusts allowed revenue if the actual number of connections is more or less than forecast, mitigating volume risk.

5.10.2 As per Ofwat guidance the Developer Services Revenue Adjustment end-of-period model derives the revenue adjustment needed in relation to developer services expected in the current control period 2020-25.

5.10.3 Ofwat will apply the adjustment derived in the model to our allowed revenue at PR24.

Assumptions and method

5.10.4 The values for new properties connected for FY21-23 represent actual values reported within table 4Q of the Annual Performance Report and the components are assured by both internal and external governance processes. 2023/24 and 2024/25 values are based upon a forward forecast. Values can differ year on year and are largely dependent on external property and construction market conditions outside our direct control.

5.10.5 We have observed a reduction in new properties connected in FY23 from the previous year and expect the short term market conditions to be challenging. Economic conditions across the next two years are uncertain and this is reflected in the forecast for FY24 and FY25. The forecast for new properties connected assumes no growth across FY24 with a small improvement in market conditions in FY25 of around 6%.

Value of adjustment

5.10.6 The actual number of new properties connected to water and wastewater services for the period FY21-23 are higher than the forecast number of connections set by Ofwat in the final determination.

5.10.7 The forecast number of new properties connected to water and wastewater services for FY24 and FY25 are also expected to be higher than the forecast number of connections set by Ofwat in the final determination.

5.10.8 In summary, for the period 2020 to 2025 we are forecasting the number of new properties connected to water services to be 133,858 (56,912 higher than the final determination forecast of 76,946). For wastewater services the forecast is 126,417 (49,322 higher than the final determination forecast of 77,095). See Table 8 and Table 9 below for a breakdown of these numbers.

Table 8: Forecast vs actual number of new properties connected to wastewater services 2020-2025, thousands

	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Forecast	15,991	14,999	16,402	15,008	14,695	77,095
Actual	26,695	26,293	24,051	23,922	25,456	126,417
Difference in volume	10,704	11,294	7,649	8,914	10,761	49,322

Data taken from Developer services revenue adjustment model

Table 9: Forecast vs actual number of new properties connected to water services 2020-25, thousands

	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Forecast	15,967	14,980	16,360	14,973	14,666	76,946
Actual	27,423	27,129	25,865	25,865	27,576	133,858
Difference in volume	11,456	12,149	9,505	10,892	12,910	56,912

5.10.9 Following the population of the model on the above basis we are forecasting an end-of-period adjustment of £63.32m for Water and £18.79m for Wastewater. The total value of the adjustment is £82.10m.

Table 10: Developer Services revenue adjustment per price control per year (2017/18 prices), £m

Price control	2020/21	2021/22	2022/23	2023/24	2024/25
Water	13.53	13.84	10.46	11.77	13.72
Wastewater	4.66	4.62	2.95	3.12	3.43
Total	**18.19**	**18.46**	**13.41**	**14.89**	**17.15**

Source: Data taken from developer services revenue adjustment reconciliation model.

5.11 Cost of new debt reconciliation model

Background and nature of the reconciliation

5.11.1 For the PR19 final determinations, Ofwat set an initial allowed cost of debt of 0.53% in CPIH terms. This allowance was based on its assessment of the average value of their benchmark index (an average of the A and BBB rated iBoxx non-financial 10years+ indices) over 2020-25, adjusted for an 'outperformance wedge' representing its assessment of the ability of the notional company to outperform this index. This reconciliation adjustment will be applied as part of PR24 and is based on the actual movements in the benchmark index over 2020-25. The reconciliation adjustment will be applied to revenues for the 2025-30 period.

5.11.2 Ofwat's cost of new debt allowance aims to remunerate companies for efficiently-incurred interest costs associated with issuing debt over the period 2020-25. The PR19 final methodology stated that Ofwat would set an initial, fixed allowance which will be reconciled to reflect actual changes in the cost of new debt as proxied by the benchmark index over 2020-25. This approach reduces forecasting error in setting the new debt allowances by ensuring that movements in economy-wide interest rates are passed to customers.

5.11.3 The reason for undertaking a reconciliation related to the allowed cost of new debt is to:

- Ensure companies' allowed revenue is consistent with the efficient new debt cost allowance over the 2020-25 period; and
- Provide companies with visibility around the magnitude of the expected reconciliation to revenues, for planning purposes.

Assumptions and method

5.11.4 UUW did not receive any company specific adjustment within its cost of debt allowance for PR19.

5.11.5 The iBoxx assumptions within the cost of debt reconciliation model have ben input as:

- Actual iBoxx data up to 25 May 2023 (to 2 decimal places).
- For the period from 26 May 2023 to 31 March 2030 the future iBoxx rate has been forecast by bootstrapping 0 year nominal forward gilt rates as at 26 May 2023, adding the semi-annual spread to benchmark from the iBoxx indices as at 25 May 2023 and then annualising thee resultant rates.
- For the period from 1 April 2030 this is kept static at the forecast 31 March 2030 rate.

Value of adjustment

5.11.6 Following the population of the model on the above basis, the total revenue adjustments applied at the end of AMP7 to correct for variations from assumptions set out at PR19 will be £48.43m.

Table 11: Cost of new debt revenue adjustments per price control per year (2017/18 prices), £m

Price control	2020/21	2021/22	2022/23	2023/24	2024/25
Water resources	1.13	0.39	0.09	0.31	0.70
Water network plus	6.42	2.20	0.49	1.69	3.68
Wastewater network plus	12.93	4.42	0.97	3.44	7.73
Bioresources	0.83	0.29	0.06	0.22	0.47
Total	**21.30**	**7.29**	**1.61**	**5.65**	**12.58**

Source: Data taken from the cost of new debt reconciliation model.

5.12 Gearing outperformance sharing mechanism

Background and nature of the reconciliation

5.12.1 Under this mechanism, companies with gearing above a prescribed 'trigger' level are required to share the benefits of higher gearing with customers.

5.12.2 Gearing shows how much debt a company has as a proportion of its RCV. Companies and their investors are responsible for decisions made about actual financial structure. However, where companies adopt high levels of gearing, it may reduce their financial resilience and transfer some risk to customers and/or potentially taxpayers in the event that the company fails.

5.12.3 The reconciliation adjustment to revenues is the sum of the gearing outperformance sharing mechanism payment amounts over the 2020-25 period which are triggered in any given year when gearing exceeds the trigger point. Under this mechanism, companies with gearing above the 'trigger' level are required to share with customers some of the difference between the allowed cost of equity and debt. The mechanism includes a glide path of the level of gearing which triggers sharing payments, reducing from 74% to 70% over the period, with sharing calculated to a reference point of 65%.

5.12.4 This reconciliation will:

- Calculate the value of gearing outperformance payments over 2020-25 to be shared with customers as part of PR24.
- Facilitate the monitoring and tracking of the amount to be shared with customers so that companies can plan for PR24.

5.12.5 The mechanism is an end-of-period reconciliation that takes the form of a revenue adjustment. Any adjustment required will be made at PR24 and will affect our allowed revenue over the 2025 to 2030 period.

Assumptions and method

5.12.6 Companies report their actual levels of gearing annually as part of the Annual Performance Report within table 1E. This model uses the reported values for the first three years and our current forecast of future new debt. Gearing stated in this table and model uses the RCV as set in PR19 rather than the 'shadow' RCV, which accounts for variations in expenditure levels captured in table 4C.

Value of adjustment

5.12.7 We do not anticipate to exceed the threshold to enact the mechanism in any of the years and therefore there is no reconciliation adjustment required for PR24. The output from the model is zero.

5.13 Tax reconciliation

Background and nature of the reconciliation

5.13.1 This reconciliation mechanism was introduced for PR19 and accounts for any changes to corporation tax or capital allowance rates after the final determination. These are significant drivers of tax payments that are both outside of company control. This is an end-of-period reconciliation that takes the form of a revenue adjustment. This means any adjustment required will be made at PR24 and would affect companies' allowed revenue over the 2025-30 period. This seeks to ensure that:

- Customers do not pay more than is needed if corporation tax rates fall.
- Companies are appropriately remunerated if rates rise.

5.13.2 It also includes an adjustment if necessary for any group loses utilised in 2020-25 where the full tax value has not been paid (or where a company hasn't charged full tax value for any losses surrendered to other group companies).

Assumptions and method

5.13.3 We recalculate the tax allowance for each year, to reflect changes to either the headline corporation tax rate or to the writing down allowances available on capital expenditure. In calculating the reconciliation adjustments for corporation tax, the reconciliation also takes into account the impact on the tax charge arising from changes to the cost of debt, derived from the cost of new debt index mechanism. To do this, we rerun the PR19 financial model using the totex allowances, PAYG and RCV run-off rates (set out in the final determination). The difference between these two models is then the resulting reconciliation adjustment that will be made at PR24.

Value of adjustment

5.13.4 Following the population of the model on the above basis, the total allowed revenue adjustment for this mechanism across AMP7 is -£132.72m. Whilst the rate of corporation tax increased from 17% to 25%, changes in the capital allowances rates since the Budget in March 2021 mean that the amount of tax the company is required to pay is lower than what was allowed in PR19, with these benefits being passed back to customers. Capital allowances enable companies that invest in plant and machinery to offset part or all of the value of the investment against its taxable profits in each year. These rate were raised with the intention of incentivising companies to increase their capital investment to help support growth following economic downturn caused by the COVID-19 pandemic.

5.13.5 As the capital allowances have been substantial this generated large values through the incentive mechanism. The breakdown of this adjustment is shown in Table 12 below.

Table 12: Tax reconciliation total revenue adjustments per price control per year (2017/18 prices), £m

Price control	2020/21	2021/22	2022/23	2023/24	2024/25
Water resources	-0.05	-0.64	-0.90	-2.03	-1.98
Water network	0.27	-9.29	-7.59	-17.51	-13.04
Wastewater network	0.05	-14.88	-9.33	-21.31	-22.11
Bioresources	0.28	-2.91	-2.09	-4.08	-3.58
Total	**0.55**	**-27.72**	**-19.91**	**-44.93**	**-40.71**

Source: Data take from tax reconciliation model.

5.14 RPI-CPIH wedge reconciliation model

Background and nature of the reconciliation

5.14.1 In AMP7 the wholesale price controls use CPIH as the measure of indexation, having previously applied the RPI to the RCV, costs and revenues. The transition from RPI to CPIH however has been phased and so for AMP7 50% of the pre-2020 RCV in each of the wholesale price controls continues to be indexed to RPI, or more precisely, a wedge assumption in addition to CPIH. The remainder of the pre-2020 RCV, including all new expenditure added after 1 April 2020, is indexed to CPIH.

5.14.2 Differences in CPIH from what was forecast at PR19 will automatically be reflected in the allowed revenues as part of the annual charges process that uses actual inflation and so does not need to be reconciled. However, the assumption that was made at PR19 for the anticipated wedge between the RPI and CPIH indices (roughly CPIH+1%) is not reflected in this process. The purpose of this mechanism is to reconcile the actual differences between these indices and adjusted revenues for what companies should have been allowed given the revised difference in wedge assumptions.

5.14.3 The RPI-CPIH end-of-period wedge reconciliation model calculates the net present value of differences between the RCV run-off and return revenue allowances based on the wedge allowed in the final determination and what the allowances would have been based on the observed actual wedge. It applies a time value of money adjustment to the differences based on the allowed return on capital. The model also calculates the indexation difference required to correct the closing value of the RPI-indexed RCV.

Assumptions and method

5.14.4 Our forecast values for both CPIH and RPI are derived from a combination of independent forecasts obtained from Banks in the short run (2 years) and the HMT medium and long term forecast thereafter. These forecasts are also contained within PR24 submission table PD1.

Value of adjustment

5.14.5 Following the publication of the PR19 final determination, the country was hit by COVID-19 pandemic, which has been followed by the ‘cost of living crisis’ and a period of sustained high inflation with a larger disparity between CPIH and RPI than what was accounted for in the assumptions made within the final determination. The scale and the nature of the inflation that we have experienced is outside of the company’s control and has had a direct impact on the RPI-CPIH wedge reconciliation, resulting in a large adjustment. We have calculated the revenue and RCV adjustments required to reconcile the differences in actual inflation to the wedge assumption applied to the RPI (CPIH + wedge) RCV as part of the PR19 final determination. The difference between RPI and CPIH has increased throughout AMP7, particularly in FY23, which results in positive reconciliation adjustments of £224.62m of RCV and £52.16m of revenue that will be applied as a midnight adjustment to the RCV and AMP8 revenues as part of PR24.

5.15 WINEP reconciliation model

Background and nature of the reconciliation

5.15.1 A large portion of enhancement expenditure is driven by environmental requirements. The current view of these requirements is set out in the latest release of the 'Water Industry National Environment Programme' (WINEP) in England which was issued on 29 March 2019. However, Ofwat did not expect some of the requirements to be confirmed until December 2021. These requirements, known as 'amber' schemes, were uncertain when it made its final determinations in December 2019.

5.15.2 The purpose of this reconciliation model is to account for the impact of Ministerial decisions on the scale of companies' environmental enhancement programmes where this differs from assumptions made at final determinations. The is an end-of-period reconciliation model that calculates a change in allowed totex as an adjustment to the RCV only for amber schemes listed in the WINEP spreadsheet used to make companies' final determinations.

5.15.3 The model ensures that the costs of the WINEP recovered from customers reflects the final version of the WINEP, i.e. the costs of any schemes that were funded by not delivered are passed back to customers and the costs of schemes that were delivered but not funded are recovered from customers.

Assumptions and method

5.15.4 In theory, the mechanism only applies to schemes designated as amber under the WINEP at the time of the PR19 determinations. An amber scheme is one that was not confirmed as being required under the WINEP at PR19, but was funded for in the final determinations.

5.15.5 Following the final determination, the EA confirmed that all of UUW's amber schemes were required and were therefore now classified as green schemes.

5.15.6 The EA also confirmed that our red schemes were required. The schemes that were designated as red in our final determination were **not** confirmed as required at the time of the final determination and therefore **not** funded for at PR19. The uncertainty mechanism also means that the efficient expenditure associated with the red schemes can be recovered.

5.15.7 Given the EA has now confirmed these schemes are statutory obligations, the reconciliation needs to reflect an uplift for the associated costs. The associated costs as set out in the final determination will be recovered from customers in AMP8. We have included these schemes in the WINEP reconciliation model and this scenario applies to UUW's WINEP scheme at Bolton.

5.15.8 We have included schemes that were removed from the WINEP in agreement with the Environment Agency, but were classed as amber and therefore funded within our PR19 Final Determination. We have ensured that the reconciliation model recognises that the funding for these schemes is no longer required and therefore the model adjusts allowances downwards.

Value of adjustment

5.15.9 Following the population of the model on the above basis, the total value of the adjustment is £80.17m, adjusted for time value of money.

Table 13: WINEP reconciliation RCV adjustments per price control per year (2017/18 prices), £m

Price control	2022/23	2023/24	2024/25
Water resources	-0.15	-0.14	-0.14
Water network	-	-	-
Wastewater network	27.65	26.86	26.10
Bioresources	-	-	-
Total	**27.50**	**26.72**	**25.96**

Source: Data taken from WINEP reconciliation model.

5.16 PR19 Water trading incentive model

Background and nature of the reconciliation

5.16.1 At PR24 Ofwat introduced water trading incentives to encourage companies to trade water where it is beneficial to do so. In the PR19 methodology, Ofwat set out its decision to retain water trading incentives for qualifying trades starting in 2020-25 at the same level as in PR14. These incentives apply to both new water exports (sellers) and new water imports (buyers) for all new qualifying trades during the 2020-2025 period. Companies that export water to other regions are able to retain 50% of the lifetime economic profit (that is, the profits over and above the normal return on capital invested), whilst importers would benefit from an import incentive of 5% of the cost of water imported under new agreements during 2020-25.

5.16.2 This end-of-period reconciliation mechanism calculates PR19 water trading incentives for qualifying trades starting in 2020-25. The adjustments will take the form of revenue adjustments and would be made at PR24, meaning they would affect companies' allowed revenue over the 2025-30 period.

Assumptions and method

5.16.3 We can confirm that whilst we do have a number of trading arrangements with other companies, we have not entered into any new trades during the 2020-2025 period over and above those that were in place prior to the beginning of the AMP.

Value of adjustment

5.16.4 Because no new trades occurred within the period the output of the model is 0.

5.17 Land sales

Background and nature of the reconciliation

5.17.1 United Utilities owns a significant value and volume of land and buildings, considered to be regulated assets held for the purpose of undertaking the role of a regulated water and wastewater business. When a company disposes of land, the licence requires that the net proceeds are split equally between shareholders and customers. The mechanism for this is through the RCV; the customers' share of any net proceeds is deducted from the RCV. The Land Sales Reconciliation model derives the adjustment needed for the RCV for disposals of interest in land expected in the current control period 2020-25. The benefit of any proceeds are split 50:50 on a discounted value basis (2.92% as per Ofwat methodology) between the company and customers via true-up of the RCV at April 2025.

5.17.2 For each PR19 price control that the adjustment applies to, the model will compare the actual land sales with the forecast land sales for each of the years in 2020-25 and calculates the customers' share of any net proceeds of land sales as set out in the company licence. It calculates the present value of the customers' share of any net proceeds from disposals of interest in land in years 2020-25 using the price control specific discount factor based on the real allowed return for the wholesale controls that applied at PR19. Finally it calculates the net present value adjustment to deduct from the RCV to apply at PR24.

5.17.3 Disposals of interest in land include the complete disposal of land as well as the (rental income) creation of an interest or right in or over land - for example the granting of leases and wayleaves. Proceeds from all such transactions are included within the model.

Assumptions and method

5.17.4 Actual input data for FY21-23 is aligned to submissions made within Table 2L of the Regulatory Reporting process (APR) and has been assured by both internal and external governing processes.

5.17.5 Forward forecast data for FY24/25 is based upon a forward forecast aligned to our internal business plan, based upon outturn (inflated) values. Values can differ year upon year and are largely dependent upon the mix of complete property disposals, as well as clawback from a related party where Ofwat has previously invoked a clawback mechanism under Condition K of UUW's licence.

Value of adjustment

5.17.6 There have been eight disposals in 2022/23, none of which are above the minimum threshold of £500k. There has been one instance of clawback from the sale of land from the non-regulated business to an external party, two changes in covenants, one reversion and three grants of easement. The rental portfolio managed by an external agent comprises 584 individual income streams.

5.17.7 There are an estimated 12 disposals in 2023/24. Again, none of these are above the minimum threshold of £500k. Again, the rental portfolio managed by an external agent comprises c584 individual income streams.

5.17.8 The forward forecast assumes a reduced level of complete disposals of land and buildings compared to historic values. This is based upon the expectation to provide increased levels of investment (and associated land requirements) in enhancement schemes required to meet the company's regulatory and environmental obligations, hence restricting the company's ability to dispose of existing land stock. The forecast of rental income (and associated costs) assumes broadly consistent levels with that of historic values, adjusted for one-offs.

5.17.9 The values assumed for all land sales within the PR19 Final Determination are zero throughout the period. Therefore, all actual and forecast values represent a differential to the assumptions set as part of the PR19 process. Following the population of the model on the above basis, the total adjustment to the RCV adjustment will be -£6.89m. The annual breakdown of this value is shown in Table 14 below.

Table 14: NPV effect of customers' share of net proceeds from disposals of interest in land per price control per year (2017/18 prices), £m

Price control	2020/21	2021/22	2022/23	2023/24	2024/25
Water resources	1.18	0.67	1.77	0.75	0.72
Water network	0.02	0.17	0.09	0.04	0.04
Wastewater	0.23	0.84	0.14	0.12	0.12
Total	**1.43**	**1.68**	**2**	**0.91**	**0.88**

Source: Data taken from land sales reconciliation models.

5.18 Strategic regional water resources

Background and nature of the reconciliation

5.18.1 At PR19 Ofwat provided funding allowance for the development during AMP7 of 17 strategic resource option projects and set up a gated process (administered by RAPID) to assess the efficiency of expenditure and manage project progress. UUW have been allocated funds for two projects; North West Transfer (NWT) and Severn to Thames Transfer (STT), which is jointly managed with Severn Trent and Thames Water.

5.18.2 This model reconciles revenue allowances for the strategic regional water resource options. The reconciliation accounts for the extent of progression of strategic options through the gated approval process.

5.18.3 Separate models have been run for each individual project so the output cost adjustments from both will need to be combined.

5.18.4 N.B. Ofwat have provided a draft new model on August 1st 2023 incorporating the changes required through the final Gate 2 decisions and feedback from Gate 2 consultation. Unfortunately a number of errors remain within the spreadsheet and therefore the original PR19 model has been used for the purposes of the PR24 submission.

Assumptions and method

5.18.5 The values for FY21-23 represent actual values for spend on the projects which was reconciled between the 3 partner companies at Gate 2. Expenditure in 2023/24 and 2024/25 are based upon a forward forecast aligned to the project plan at time of writing. All values are presented in FY17/18.

5.18.6 There is an assumption that both projects will progress to Gate 3 by Jan 2025 however this is not certain and RAPID has the option to stop the project at the conditional review checkpoint in Jan 2024.

Value of adjustment

5.18.1 Both projects are forecast to underspend the original allowance from PR19 leading to negative adjustments. The main reason for the adjustment is due to the change in timings of the project gateways with Gate 4 activities being pushed into AMP8. The level of activity forecast for the end of AMP7 has also been tailored to align with the final water resources plans with STT not required until later in the planning period.

5.18.2 The adjustment is greater for UUW on the STT project as this reflects the change in partner shares between the three companies from Gate 2 onwards with Thames taking an 80% share in funding responsibility due to their lead role in development of the STT interconnector.

5.18.3 In summary, we are forecasting a total negative adjustment to revenue of -£14.19m and a total negative RCV adjustment of -£4.43m. The breakdown of this across the two projects can be seen in Table 15 below.

Table 15: Strategic regional water resources reconciliation revenue adjustment (2017/18 prices), £m

	North West Transfer (NWT)	Severn Thames Transfer (STT)	Total
Revenue adjustment	-5.83	-8.36	-14.19
RCV Adjustment	-1.82	-2.61	-4.43

5.19 Green recovery cost allowance adjustment

Background and nature of the reconciliation

5.19.1 Since publishing the PR19 Reconciliation rulebook Ofwat have developed two new Green recovery reconciliation models, namely the Green recovery cost allowance adjustment and the Green recovery time value of money adjustment model. The PR19 cost reconciliation model has been updated to include a cost sharing element for green recovery expenditure. The mechanism takes the total variance between green recovery expenditure and the delivery adjusted green recovery allowance found in the green recovery cost allowance adjustment model. This variance is allocated to financial years in line with the profile of actual expenditure. A time value of money adjustment is then applied to this variance. Finally, the appropriate sharing rate is applied to the time value of money adjusted variance to calculate the cost sharing adjustment to be applied at PR24.

5.19.2 In July 2020, Defra, Ofwat, the Environment Agency (EA), the Drinking Water Inspectorate (DWI) and the Consumer Council for Water (CCW) invited water companies to identify ways to support the country's green economic recovery from the COVID-19 pandemic. They set out an ambition to build back greener from the pandemic: delivering lasting environmental improvements for current and future generations, whilst meeting the economic and social challenges England faces - known as 'Green recovery'. Water companies were asked to bring forward new proposals and accelerate existing ones to deliver an innovative and more resilient future for customers, society and the environment. Following submissions from companies in January 2021, Ofwat issued its final decisions in July 2021. We received endorsement to progress with a total allowance of £64.402m additional allocation on top of our existing PR19 final determination.

5.19.3 This allocation focussed on three specific schemes:

- Accelerating partnerships to deliver natural solutions.
- AMP8 WINEP investments at Bury.
- Tackling storm overflows.

5.19.4 More detail about these schemes can be found in our Green Recovery Annual progress report[14] which outlines the progress made in the last financial year on the individual delivery components of each these three schemes and associated financial profile, the benefits realised through Green recovery activity under our AMP7 performance commitments and the future milestones in our plan.

5.19.5 The purpose of the cost allowance adjustment model is to calculate an adjusted cost allowance for the green recovery schemes, based on forecast delivery by 31 March 2025. Where a company is forecast to reach less than full delivery of a scheme by this date, the model will adjust the cost allowance it received for this scheme downwards, in proportion to the percentage of the scheme that is undelivered. The model does this at a scheme component level, before aggregating to a scheme and then price control level. This adjusted cost allowance is then used by the cost sharing model and green recovery time value of money adjustment model to calculate the cost sharing and time value of money adjustments.

Value of adjustment

5.19.6 The total value of the adjustment across the price controls is £20.32m. (NB: this model was submitted to Ofwat in July 2023 as part of our 'Early submission of data for PR19 reconciliation models'.)

Table 16: Green recovery cost allowance adjustment per price control per year (2017/18 prices), £m

Price control	2021/22	2022/23	2023/24	2024/25
Water resources	0.30	0.71	1.46	0.42
Water network plus	-	-	-	-
Wastewater network plus	1.25	2.98	8.81	4.39
Bioresources	-	-	-	-
Total	**1.55**	**3.69**	**10.27**	**4.81**

Source: Data taken from Green recovery cost allowance adjustment reconciliation model.

5.20 Green recovery time value of money adjustment

Background/nature of the reconciliation

5.20.1 This model compares revenue received in-period to fund the green recovery with allowed expenditure. The allowed expenditure is expenditure adjusted to take account of delivery of schemes. It makes an adjustment to RCV to reflect the difference between revenue received and delivery adjusted allowed expenditure. It calculates a time value of money adjustment for green recovery expenditure. The time value of money approach mirrors that used in the Ofwat PR19 cost sharing reconciliation model.

Value of adjustment

5.20.2 After populating the model, the total value of the adjustment across the price controls is £0.66m. The outputs of the model are used within the PR24 financial model to adjust the AMP8 revenues via the revenue feeder model. (NB: this model was submitted to Ofwat in July 2023 as part of our 'Early submission of data for PR19 reconciliation models'.)

[14] https://www.unitedutilities.com/globalassets/documents/pdf/green-recovery-2023/download

5.21 Regulatory Capital Value (RCV) feeder model

RCV feeder models commentary

5.21.1 The RCV feeder model takes the RCV adjustments as calculated by each individual reconciliation model as inputs and ensures that these inputs align with the input requirements of the PR24 financial model (e.g. 2022-23 CPIH prices).

5.21.2 The only area where we have altered inputs is for transitional investment and the accelerated programme. As Ofwat says on page 77 of its Final Methodology Appendix 9[15]: *"we will apply a time value of money adjustment to transition expenditure incurred in 2023-24"*. Therefore, we have applied a time value of money adjustment to transitional investment and the accelerated programme to align with Ofwat's Final Methodology. We used the AMP7 wholesale WACC of 2.92%, although we note that it could also be appropriate to use the guidance AMP8 WACC of 3.23%.

5.21.3 This time value of money adjustment had the following profile:

Table 17: RCV feeder model time value of money adjustment profile

	2023-24	2024-25
Time value of money adjustment	1.029	1.000

Source: Data taken from RCV feeder mdel.

5.21.4 We applied this adjustment to our transitional investment and accelerated programme expenditure before inputting into the RCV feeder model

Outputs of the model

5.21.5 The table below sets out the output of the RCV feeder model, in each of the four different pricebases produced by the model.

Table 18: RCV feeder model outputs per price control (four different pricebases), £m

Opening balances	2017-18 FYA	2017-18 FYE	2022-23 FYA	2022-23 FYA
Water resources	609.965	615.135	720.145	742.142
Water network plus	3,274.068	3,301.818	3,865.473	3,983.545
Wastewater network plus	7,189.095	7,250.030	8,487.685	8,746.943
Bioresources	408.358	411.819	482.121	496.848

Source: Data taken from RCV feeder model.

5.22 Revenue feeder model

5.22.1 In populating the latest version of the PR24 revenue adjustments feeder model we have observed three issues with the way that it calculates the revenue adjustments to use within RR6, inputs into the PR24 financial model, and ultimately the allowed revenue that it calculates companies will receive for these adjustments during AMP8. These are:

- The approach to profiling the current in-period ODIs revenue adjustment appears to limit the opportunity for companies to smooth the impact on customer bills,
- An issue whereby 'PR19 ODI revenue adjustments' for Residential Retail are (erroneously) excluded from the outputs if the input tax uplift eligibility switch is on (set to 1) and,

[15] Ofwat (2022) *Final methodology: appendix 9*. Available here: https://www.ofwat.gov.uk/wp-content/uploads/2022/12/PR24_final_methodology_Appendix_9_Setting_Expenditure_Allowances.pdf

- How the revenues output from this feeder model are subsequently used in the financial model and in the determination of allowed revenues, in particular the interaction with tax.

5.22.2 We brought these issues to the attention of Ofwat in a query dated 22 August 2023 (Query ID: 538.) We recognise that it is too late for Ofwat to make adjustments to the current workings of this feeder model or the financial model prior to companies submitting their plans in October. Therefore, this commentary sets out the approach that we have adopted for our business plan submission to mitigate their impact.

5.22.3 We take each issue in turn.

1. The approach to profiling the current in-period ODIs revenue adjustment appears to limit the opportunity for companies to smooth the impact on customer bills.

- **Issue:** The model contains specific inputs for in-period ODI payments to be recovered in the first two years as well as a more non-specific input labelled '*PR19 ODI revenue adjustment*'. There is no explicit guidance to differentiate between the inputs and so our interpretation is that Ofwat intends for companies to populate the reward/penalty associated with any AMP7 in-period ODIs in the former and then any end-of-period ODIs within the latter. Populating any reward/penalty in the 'in-period' input cells will automatically assign these adjustments into years 1 and 2 of AMP8. We are currently forecasting rewards for the final two years of AMP7 – we are concerned that assigning these to the first two years of AMP8 would cause a significant and temporary spike in customer bills, which we would typically propose to smooth over the whole of AMP8. Previous customer research has shown that customers have a clear preference for smooth and predictable bills. Therefore we do not think that the automatic profiling (into years one and two of AMP8) of these revenues is best for customers. We note that as part of the in-period adjustments, companies have the ability to request deferral of revenues into future periods in order to mitigate these problems, but the ability does not currently exist in this model to do the same or to reflect the prospective requests that might be made for this.

- **Our solution:** In order to address these issues for our submission we have entered all remaining AMP7 ODI revenue adjustments into the '*PR19 ODI revenue adjustment*' inputs, thereby enabling the impacts to be smoothed over five years in the financial model and for setting revenues. This anticipates a request to Ofwat next year, as part of our in-period ODI determination submission, that we would defer these additional revenues in line with the established process and not to double count these adjustments. We believe that this is the most effective and least intrusive way to alleviate the issue raised and can be accommodated within the current modelling approach.

  We recognise that Ofwat states in its PR24 Final Methodology that "we remain open to amending the approach set out in the PR19 Reconciliation Rulebook for in period ODIs" (p145) and also that "companies will have the flexibility to decide the proportion of the 2024-2025 blind year adjustments recovered in each of the remaining years of 2025-2030" (p145) and believe that our query and proposed solution fits within these stated objectives.

2. An issue whereby 'PR19 ODI revenue adjustments' for Residential Retail are (erroneously) excluded from the outputs if the input tax uplift eligibility switch is on.

- **Issue:** The 'Outputs' tab for 'Residential retail revenue adjustment', which companies use to populate RR6.25, only captures revenue adjustments that are not eligible for tax uplifts (as controlled by the 'Tax Uplift Eligibility Switches' within the InpS tab). These inputs have now been prepopulated by Ofwat in line with the approach set out in the PR19 reconciliation rulebook. This means that for any Retail revenue adjustment that is eligible for tax adjustments e.g. ODIs and CMeX, there is no way in which for companies to enter these into the financial model using this feeder model and RR6 as currently set.

- **Proposed solution:** We have set the switch tax eligibility switch for all Retail revenue adjustments to 0, therefore enabling them to be captured in the output of this model without the need to adjust any formulas or create additional inputs in RR6 and the Ofwat financial model. However, this leads to a subsequent issue, as this results in retail reconciliation adjustments not being categorised as in receipt of any tax uplift – this issue is explored further in the point below.

3. How the revenues output from this feeder model are subsequently used in the financial model and in the determination of allowed revenues, in particular the interaction with tax.

- **Issue:** The total revenue allowed for revenue adjustments in the Retail price control will be understated (post-tax) because of the absence of a tax allowance within the cost to serve derivation and subsequent allowed average revenue calculation. In the reconciliation rulebook, Ofwat notes that the “overarching policy goal is to ensure that we are not creating incentives for companies to comply with our price controls in a way that attempts to realise a tax gain” (p17) and that a “tax adjustment is required to ensure the full force of these incentives is experienced by companies” (p19). We support these policy goals and rationales.

  In the wholesale price controls, a revenue allowance is made for tax so that, post-tax, the full incentive of the adjustment is felt through a combination of the reconciliation revenue and tax allowance. The way in which this is applied is that for revenues eligible for a tax adjustment, the full value is modelled and tax on the profit this creates is added to allowed revenue. Once the company pays the tax it is left with, post-tax, the initial value of the reconciliation adjustment. This approach is adopted in the in-period/ RFI adjustments that companies make each year and also in the PR24 Financial Model. For revenues that are not eligible, the revenue input value is reduced so that any tax calculated on the resulting profit does not add to allowances as the company would have experienced an opposing tax effect in the prior AMP and therefore over the two periods, tax paid is equated. However, Retail allowed average revenues do not include any allowance for tax. For any adjustment made, companies will pay (more/less) tax and the strength of the incentive will be weakened as a result. We do not think that, in a post-tax regulatory environment, it could be appropriate for the Retail adjustments to be effectively reduced by 33% (25% geometrically adjusted) in the PR24 revenue allowances, especially when for any corresponding in-period adjustments a tax allowance would be made to ensure that the full incentive is realised. We are assuming that this output is unintentional and in error.

- **Proposed solution:** Rather than seeking to change any workings within the PR24 Financial model or Retail cost to serve to make a tax allowance for Retail revenue eligible for tax adjustments, we have grossed up the input of Retail revenue adjustments that are eligible for tax adjustments (ODI and CMeX) in line with the PR19 Reconciliation Rulebook using the same approach that Ofwat does for the in-period tax adjustments, by applying a geometric uplift for the rate of tax. This will result in the actual company receiving the intended value of any adjustment, post-tax.

Overall value of the adjustment

5.22.4 The revenue feeder model results in the following revenue adjustments, which are eligible for a tax uplift:

Table 19: Revenue feeder model adjustments eligible for a tax uplift (22/23 FYA-CPIH prices), £m

Post financeability adjustments eligible for tax uplift	AMP8	2025-26	2026-27	2027-28	2028-29	2029-30
Water resources	4.111	0.822	0.822	0.822	0.822	0.822
Water network plus	104.619	20.924	20.924	20.924	20.924	20.924
Wastewater network plus	59.335	11.867	11.867	11.867	11.867	11.867
Bioresources	8.887	1.777	1.777	1.777	1.777	1.777

Source: Data taken from the Revenue feeder model.

5.22.5 The revenue feeder model results in the following revenue adjustments, which are not eligible for a tax uplift:

Table 20: Revenue feeder model adjustments not eligible for a tax uplift (22/23 FYA-CPIH prices), £m

Post financeability adjustments not eligible for tax uplift	Units	AMP8	2025-26	2026-27	2027-28	2028-29	2029-30
Water resources	£m	(26.898)	(5.380)	(5.380)	(5.380)	(5.380)	(5.380)
Water network plus	£m	239.613	47.923	47.923	47.923	47.923	47.923
Wastewater network plus	£m	41.001	8.200	8.200	8.200	8.200	8.200
Bioresources	£m	(13.646)	(2.729)	(2.729)	(2.729)	(2.729)	(2.729)

Source: Data taken from the revenue feeder model

5.22.6 The revenue feeder model results in the following revenue adjustments for residential retail:

Table 21: Revenue feeder model adjustments for residential retail (2022/23 CPIH FYA prices), £m

	AMP8	2025-26	2026-27	2027-28	2028-29	2029-30
Residential retail revenue adjustment	63.002	12.600	12.600	12.600	12.600	12.600

Source: Data taken from the revenue feeder model.

Appendix A AMP7 performance commitments

A.1.1 The table below shows the reported performance levels for each of our performance commitments with financial incentives for the first three years of AMP7. Performance numbers highlighted in green are where we have passed our annual performance target, whilst those highlighted in red are where we missed the target.

Table 22: Overview of performance against performance commitments 2020-2023

Performance Commitment	Unique reference	2020/21	2021/22	2022/23
Water quality compliance (CRI)	PR19UUW_A01-CF	2.58	3.02	3.67
Reducing water quality contacts due to taste, smell and appearance	PR19UUW_A02-WN	17.7	17.9	14.1
Number of properties with lead risk reduced	PR19UUW_A03-WN	0	3,525	3,487
Helping customers look after water in their home	PR19UUW_A04-WN	13.8%	23.8%	31.6%
Reducing discolouration from the Vyrnwy treated water aqueduct	PR19UUW_A05-WN	0.0	0.0	0.0
Leakage	PR19UUW_B01-WN	1.9%	4.7%	5.9%
Mains repairs	PR19UUW_B02-WN	106.6[16]	96.0	111.6
Water supply interruptions	PR19UUW_B03-WN	00:04:46[17]	00:08:01[18]	00:38:45
Unplanned outage	PR19UUW_B04-CF	1.88%	2.07%	1.73%
Per capita consumption	PR19UUW_B05-WN	1.7%	1.5%	0.5%
Reducing areas of low water pressure	PR19UUW_B07-WN	1.114[19]	0.513	0.462
Water service resilience	PR19UUW_B08-WN	106	915	2,198
Manchester and Pennine resilience	PR19UUW_B09-DP	Achieved	Achieved	Achieved
Keeping reservoirs resilient	PR19UUW_B10-WR	0.000	0.000	1.200
Thirlmere transfer into West Cumbria (AMP7)	PR19UUW_B11-WN	99%	99%	100%
Pollution incidents	PR19UUW_C01-WWN	18.10	17.71	16.29
Treatment works compliance	PR19UUW_C02-CF	99.75%	98.98%	98.45%
Abstraction incentive mechanism	PR19UUW_C03-WR	-695.9	-134.4	0.00
Improving the water environment	PR19UUW_C04-WR	0	62	80
Improving river water quality	PR19UUW_C05-WWN	0	0	0
Protecting the environment from the impact of growth & new development	PR19UUW_C06-WWN	0	94	6,979
Enhancing natural capital value for customers	PR19UUW_C08-CF	0.00	2.508	0.000
Recycling biosolids	PR19UUW_C09-BR	99.87%	100%	100%
Better air quality	PR19UUW_C10-BR	1.30	1.19	1.07
Number of customers lifted out of water poverty	PR19UUW_E01-HH	71,057	77,312	84,002
Non-household vacancy incentive scheme	PR19UUW_E03-CF	7,940	14,519	6,022
Gap sites (Wholesale)	PR19UUW_E04-CF	949	1,912	1,339
Gap sites (Retail)	PR19UUW_E05-HH	6,349	7,455	8,986
Successful delivery of direct procurement of Manchester & Pennine resilience	PR19UUW_E07-DP	On track	On track	On track
Voids	PR19UUW_E10-HH	6.01%	4.51%	4.45%
Sewer collapse	PR19UUW_F01-WWN	14.61	13.70	14.13
Sewer blockages	PR19UUW_F02-WWN	22,639	20697[20]	20,203
Internal flooding Incidents	PR19UUW_G02-WWN	4.47	2.98	2.32
External flooding Incidents	PR19UUW_G03-WWN	6,849	6,223	5,916
Raising customer awareness to reduce the risk of flooding	PR19UUW_G04-WWN	4.1%	17.4%	39.0%

[16] Updated following 2020/21 in-period determination

[17] Number updated following query (APR-IP-010).

[18] Number updated following resolution of customer query

[19] Revised performance to comply with Ofwat reporting clarification associated with total connected properties reporting.

[20] Restated following November 2022 Final determination of United Utilities' in-period outcome delivery incentives for 2021/22

Performance Commitment	Unique reference	2020/21	2021/22	2022/23
Hydraulic internal flood risk resilience	PR19UUW_G05-WWN	41.84	40.61	38.49
Hydraulic external flood risk resilience	PR19UUW_G06-WWN	179.84	184.04	173.30
Percentage of Performance Commitments passes overall	**Percentage (%)**	**80%**	**78%**	**82%**

Source: UU 2022/23 APR (FY23)[21]

21 https://uusp/SF/ER/Annual%20Performance%20Report%202023/25.%20Table%20consolidation/Working%20version/unitedutilities.com/globalassets/documents/pdf/united-utilities-annual-performance-report-2022-23

United Utilities Water Limited
Haweswater House
Lingley Mere Business Park
Lingley Green Avenue
Great Sankey
Warrington
WA5 3LP

unitedutilities.com

Water for the North West